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EXAMINER

NGO, NGUYEN HOANG

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PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MURALEEDHARA HERUR NAVADA and HITESH RASTOGI

Appeal 2009-011469
Application 10/749,792
Technology Center 2400

Before MAHSHID D. SAADAT, BRADLEY W. BAUMEISTER,
and BRUCE R. WINSOR, *Administrative Patent Judges*.

WINSOR, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1-14, 21-23, and 27-31, which constitute all the claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

STATEMENT OF THE CASE

Appellants' invention relates to a method for routing a data packet through a stack of routers. (*See Spec. 1:8-15*). When a router in the stack receives a data packet that is to be routed to another router in the stack before being forwarded to the packet's destination, a vector is inserted in the packet to assist the packet being routed through the stack. (*See Spec. 5:13-16*). Claim 1, which is illustrative of the invention, reads as follows:

1. A method comprising:

receiving a packet at a packet forwarding device in a stack of packet forwarding devices, wherein the packet is received from a source device external to the stack;

at the packet forwarding device that received the packet from the source device, processing the received packet to:

identify a destination device external to the stack of packet forwarding devices, and

determine whether at least one other packet forwarding device is to receive the packet before reaching the identified destination device; and

when detecting that the at least one other packet forwarding device in the stack is to receive the packet before reaching the identified destination device, inserting a vector in the received packet, wherein the vector includes data that identifies the identified destination device and the at least one other packet forwarding device in the stack of packet forwarding devices to receive the packet.

Claims 1-14, 21-23 and 27-31 stand rejected under 35 U.S.C. § 103 (a) as unpatentable over Weyman (US 2003/0147412 A1, Aug. 7, 2003) in view of Abali (US 5,721,820, Feb. 24, 1998).¹

Rather than repeat the arguments here, we make reference to the Briefs (App. Br. filed June 9, 2008; Reply Br. filed Sep. 19, 2008) and the Answer (mailed Aug. 19, 2008) for the respective positions of Appellants and the Examiner. Only those arguments actually made by Appellants have been considered in this decision. Arguments that Appellants did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUE

The pivotal issue presented by Appellants' arguments is whether Abali's disclosure of inserting a routing word into a packet header at a packet source teaches or suggests inserting a routing vector in packet received at a router (i.e., packet forwarding device) in a stack of routers to route the packet to another router in the stack of routers before routing the packet to its destination, as recited in claim 1 (App. Br. 7-11; Reply Br. 1-5).

ANALYSIS

The Examiner finds it would have been obvious, at the time of the invention, to modify Weyman's router stack 1 (Weyman, Fig. 1). in view of Abali's teaching of inserting packet routing information into a packet (*see*

¹ The Examiner has withdrawn rejections of claims 7, 14, 30 and 31 under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement (Ans. 3).

e.g., Abali, col. 1, ll. 25-66) so that when a router in the routing stack receiving a packet detects that the packet must be forwarded to another router in the stack before being forwarded to its destination, a routing vector (i.e., routing words) is inserted into the packet identifying the other router in the stack and the destination (Ans. 3-5). Appellants contend that because Abali only discloses inserting the routing words at the packet source processor (Abali, col. 3, ll. 17-20; col. 3, l. 49 - col. 4, l. 5) (App. Br. 8-9) rather than a receiving router, as claimed, it would not have been obvious to make the proposed combination. Appellants further contend that Abali teaches that each switch (i.e., router) that receives a packet deletes a routing word from the routing header, rather than adding a routing vector as claimed (Abali, col. 3, ll. 20-25) (App. Br. 9-10). Appellants argue that, in view of these distinctions, a skilled person would not combine Abali with Weyman in the manner proposed by the Examiner (App. Br. 10- 11) and that the Examiner has exercised impermissible hindsight (Reply Br. 4-5).

We agree with Appellants. Weyman discloses a stack of routers in which a router receiving a packet forwards the packet by bridging to the router in the stack owning the necessary egress port (Weyman ¶ [0025]). Weyman further discloses that routing information (i.e., media access control (MAC) address) is contained in a packet received from hop 33 at the receiving router 24 (i.e., was inserted at a source) (Weyman, Fig. 3, ¶ [0028]). Weyman further teaches that the receiving router 24 of the receiving stacked unit 0 changes the routing information to the MAC address for the next hop and to identify its own MAC address as the source (*id.*), then cascades/bridges the packet to the stacked unit 1 having an appropriate port for the next hop 34 (Weyman, Fig. 3, ¶ [0030]). In other words, the

information added by router 24 relates only to the addresses of router 24 and the next hop. Therefore, Weyman does not teach or suggest that

when [a receiving packet routing device detects that] at least one other packet forwarding device in the stack is to receive the packet before reaching the identified destination device, inserting a vector in the received packet, wherein the vector includes data that identifies the identified destination device and the at least one other packet forwarding device in the stack of packet forwarding devices to receive the packet[,]

as recited in claim 1.

Abali does not cure this deficiency, as Abali is cited by the Examiner to show that inserting routing information in a packet is known, and not for the routing information recited in claim 1 (Ans. 7). Accordingly, as a prima facie case of obviousness has not been established, we do not sustain the rejection of claim 1, and its dependent claims 2-7. We also do not sustain the rejections of claim 8, and its dependent claims 9-14, and claim 21, and its dependent claims 22, 23, and 27-31, for same reasons as for claim 1.

ORDER

The decision of the Examiner to reject claims 1-14, 21-23, and 27-31 is reversed.

REVERSED

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